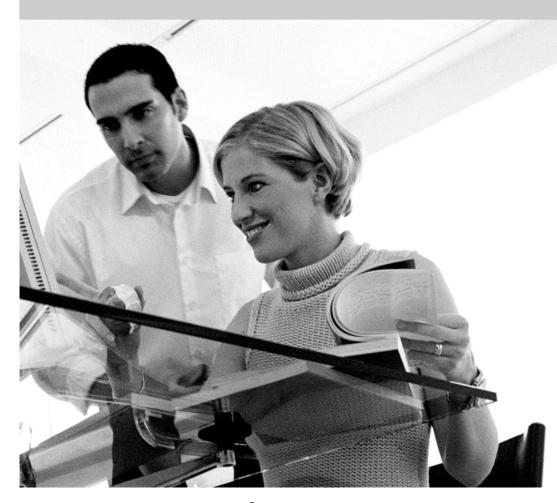
answers² EasyGuide

AMILO Pro

English





Are there ...

... any technical problems or other questions which you would like to be clarified?

Please contact:

- your sales partner
- your sales outlet

Additional information is contained in the "Warranty" manual and the Help Desk list.

The latest information on our products, tips, updates, etc., can be found on the internet under: http://www.fujitsu-siemens.com

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January 2004 edition

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Innovative technology ...

and ergonomic design make your AMILO Pro the ideal user-friendly and reliable notebook. Your operating system is pre-installed on the hard disk to facilitate the procedure when you use your notebook for the first time.

Depending on the initial configuration, the main memory of your notebook can be upgraded to 128 - 1024 Mbyte with a 128, 256 or 512 Mbyte memory module. Depending on the variant, your notebook is shipped with a DVD drive or a combo drive (CD-RW/DVD). Up to two PC card slots (CardBus or PCMIA) enable the notebook to operate a type II or type III PC card. Your notebook is equipped with an internal modem and LAN.

For mouse control, the notebook has a touchpad.

Your notebook has connectors for external devices such as an external monitor, a printer, and a mouse. The ECP capable parallel port is designed for fast bi-directional data transfer. You can connect peripheral devices such as a scanner, loudspeakers, gamepads, keyboard, or mouse via the three USB ports.

An audio controller and two internal loudspeakers provide your AMILO with an audio capability. You can also connect an external microphone and an external loudspeaker.

The system settings of the notebook can be configured via the user-friendly BIOS Setup programme.

This operating manual tells you how to put your AMILO into operation, and how to operate it in daily use.

Further information on this notebook is provided:

- in the "Getting Started" manual
- in the "Safety and Ergonomics" manual
- in the "Warranty" manual
- in the information files (e.g. *.TXT, *.DOC, *.WRI, *.HLP, *.PDF)
- in the documentation of the operating system

Notational conventions

The following symbols are used in this manual:



Indicates information which is important for your health or for preventing physical damage. Failure to follow the instructions may lead to loss of data, invalidate your warranty, destroy the notebook, or endanger your life.



Indicates important information which is required to use the system properly.

► Text which follows this symbol describes activities that must be performed

in the order shown.

This font indicates screen outputs.

This font indicates programme names, commands or menu items.

"Quotation marks" indicate names of chapters, data carriers, and terms that are being

emphasised.

Important notes

Here you will find essential safety information regarding your notebook. In addition, the manufacturer's notes contain helpful information about your notebook.

Safety notes



Pay attention to the information provided in the "Safety and Ergonomics" manual and in the following safety notes.

Observe the sections in the manual marked with the symbol on the left.

- During installation and before operating the device, please observe the instructions on environmental conditions in the "Technical data" chapter as well as the instructions in the "Preparing the notebook for use" chapter.
- When connecting and disconnecting cables, observe the relevant notes in this operating manual.
- When cleaning the device, please observe the relevant notes in the "Cleaning the notebook" paragraph.
- Only use batteries designed for this notebook.
 - Do not store batteries for longer periods in the notebook.
 - Take care not to drop the batteries or otherwise damage their casing (fire risk).
 - If the rechargeable batteries are defective, they must not be used.
 - Do not touch the contacts of the batteries.
 - Never interconnect the positive and negative terminals of a battery.
 - Used batteries must be disposed of in accordance with local regulations (special waste).
- The notebook includes a lithium battery (button cell) for real-time buffering. Please note that:
 The lithium battery may be replaced only by authorised personnel. Incorrect handling may lead to a risk of explosion.
 - The lithium battery may be replaced only with an identical battery or with a type recommended by the manufacturer.
 - The lithium battery must be disposed of in accordance with local regulations concerning special waste.
- All batteries containing pollutants are marked with one of the two symbols below (crossed-out garbage can).



In addition, the marking is provided with the chemical symbol of the heavy metal decisive for the classification as a pollutant.

Cd Cadmium Hg Mercury Pb Lead

 Your notebook is equipped with security functions that offer you a high level of security according to a multi-level concept. Detailed information can be found in "Security functions" chapter.

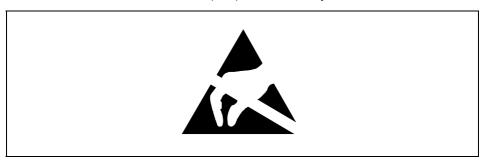
This notebook complies with the relevant safety regulations for data processing equipment. If you have questions as to whether you can set up the notebook in the intended environment, please contact your sales point or our hotline/help desk.

Notes on installing and removing boards and modules



Only qualified technicians should repair the device. Unauthorised opening or incorrect repair may greatly endanger the user (electric shock, fire risk).

Boards with electrostatic sensitive devices (ESD) are identifiable by the label shown.



When you handle boards fitted with ESDs, you must, under all circumstances, observe the following points:

- You must statically discharge yourself before working with boards (e.g. by touching a grounded object).
- The equipment and tools you use must be free of static charges.
- Remove the power plug from the mains supply before inserting or removing boards containing ESDs
- Always hold boards with ESDs by their edges.
- Never touch pins or conductors on boards fitted with ESDs.

Manufacturer's notes

Energy saving

If you will not be using your notebook, switch it off.

Make use of the device's energy saving functions (see section "Working with the notebook"). The notebook uses less power when the power management features are enabled. You will then be able to work for longer before having to recharge the battery.

Energy saving under Windows

If a monitor with energy saving features is connected to your notebook, you can use the *Screen Saver* tab to activate the energy saving features of the monitor. Select the following item in the start menu: *Settings - Control Panel - Display - Display Properties - Screen Saver - Energy saving functions for the display*. You can set additional energy saving functions in the start menu by selecting the following item: *Settings - Control Panel - Energy - Extended*.

Energy Star



The notebook from Fujitsu Siemens Computers is designed to conserve electricity by dropping to less than 8 W when it goes into standby/suspend mode and to less than 3 W when it goes into OFF mode. With this level of power management, the notebook qualifies for the U.S. Environmental Protection Agency's (EPA) Energy Star Computers award.

The EPA estimates that computer equipment uses 5 percent of all business electricity and that this is growing rapidly. If all desktop PCs and peripherals enter a low-power mode when not in use, the overall savings in electricity could amount to \$ 2 milliard annually. These savings could also prevent the emission of 20 million tons of carbon dioxide into the atmosphere - the equivalent of 5 million automobiles.

As an Energy Star Partner, Fujitsu Siemens Computers GmbH has determined that this product meets the Energy Star guidelines for energy efficiency.

Recycling and disposal

Do not throw batteries or accumulators into the household waste.

Our devices are mostly produced of materials that can be turned over for proper recycling. The device may be taken back after use to be recycled, provided that it is returned in a condition that is the result of normal use. Any components not reclaimed will be disposed of in an environmentally acceptable manner. To give back a device please take advantage of your country's disposal and recycling possibilities.

Further information about country-specific disposal and recycling possibilities can be found on the following website www.fujitsu-siemens.com/recycling.

If you have any questions on disposal, please contact your local office or our Help Desk.

CE marking



The shipped version of this device complies with the requirements of the EEC directives 89/336/EEC "Electromagnetic compatibility" and 73/23/EEC "Low voltage directive".

Storing the battery

Store the battery in a fully charged state. Keep the battery pack between 0°C and +30°C (32 and 122 degrees Fahrenheit). The lower the temperature at which the batteries are stored, the lower is the rate of self-discharge.

If storing for a long period of time (longer than two months) batteries should be fully charged before storage.

To be able to make use of the optimal charging capacity of the batteries, the battery should be completely discharged and then fully recharged.



If you do not use the batteries for long periods, remove them from the notebook. Never store the batteries in the unit.

Transporting the notebook

Please observe the points listed below when transporting your notebook.

Before you travel

- Back up important data stored on your hard disk.
- If you wish to use your notebook during a flight, first check with the flight attendants if it is permissible to do so.
- If you are travelling abroad, ensure that the power adapter can be operated with the local mains voltage. If this is not the case, obtain the appropriate power adapter for your notebook.
 Do not use any other voltage converter!



If you travel in another country, check whether the local power supply and the specifications of the power cable are compatible. If this is not the case, buy a power cable that matches the local conditions. Do not use a connection adapter for electrical devices to connect the notebook.

If you use a modem, incompatibilities with the local telecommunications system may result.

Transporting the notebook

- Remove all data carriers (e.g. CD) from the drives.
- Unplug the power adapter and all external devices from the mains outlet.
- Disconnect the power adapter cable and the data cables for all external devices.
- Close the LCD screen so that it locks into place.
- If the device needs to be shipped, use the original packaging or other suitable packaging to
 protect it from damage caused by mishandling.
- To protect against damaging jolts and bumps, use a notebook carrying case to transport your notebook.
 - Fujitsu Siemens Computers offers a number of solutions for transporting your notebook. The current offering can be viewed on the Internet at http://www.e-shop2.de.
- Protect the notebook from severe shocks and extreme temperatures (e.g. direct sunlight in a car).

Cleaning the notebook

- Switch the notebook off.
- Pull the power plug of the network adapter out of the mains outlet.
- Remove the battery.



Do not clean any interior parts yourself; leave this job to a service technician.

Do not use any cleaning agents that contain abrasives or may corrode plastic. The use of improper cleaning agents can damage the markings on the keyboard and the notebook, the paintwork of the device or the device itself.

Ensure that no liquid enters the notebook.

Wipe the casing with a dry cloth.

If particularly dirty, use a cloth that has been moistened in mild domestic detergent and then carefully wrung out.

To clean the touchpad, you can use disinfectant wipes.

Wipe the LCD screen with a soft, moistened cloth.

Preparing the notebook for use



Please take note of the information in the "Important notes" chapter.

You must charge the battery and install the application programmes before you can work with the notebook. The operating system and drivers required are preinstalled.

When not plugged into a mains outlet, the notebook runs on its built-in battery. You can increase the battery's life by enabling the system's energy saving functions.

If you use the notebook in a normal office situation, run it from the mains using the power adapter.

Please see the "Connecting external devices" chapter for instructions on how to connect devices such as a mouse and a printer to the notebook.

Unpacking and checking the delivery

- Unpack all the individual parts.
- ▶ Check the delivery for damage incurred during transportation.
- i

Do not discard the original packing material of the devices. Keep the original packing material in case you need to ship the equipment again.

Selecting a location

Select a suitable location for the notebook before setting it up. Consider the following points when looking for a location:

- Do not place it on a soft surface (e.g., a carpet or soft furnishings). The space between the notebook's feet must be clear.
 - Place the notebook on a stable, flat, nonslippery surface. In view of the multitude of different finishes used on furniture, it is possible that the rubber feet of the notebook will mark the surface they stand on.
- Never place the notebook and the power adapter on a heat-sensitive surface.
- The notebook and the power adapter should be at least 200 mm apart.
- Keep other objects 100 mm away from the notebook and its power adapter to ensure adequate ventilation.
- Never cover the fan intake or exhaust openings of the notebook or the power adapter.
- Do not expose the notebook to extreme environmental conditions.
 Protect the notebook from dust, humidity, and heat.

Connecting the power adapter



Please take note of the information in the section "Selecting a location".

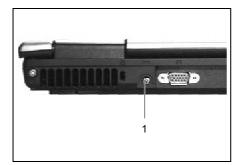
The power cable supplied conforms to the requirements of the country in which you purchased your notebook. Make sure that the power cable is approved for use in the country in which you intend to use it.

The power adapter's AC cord should only be connected to a mains outlet if the notebook is connected to the power adapter. (electric shock!)

Upon delivery, the battery can be found in the battery compartment.

Do not use the power adapter for other notebooks or devices.

Do not use a power adapter that is not specially intended for this notebook.



- Connect the power adapter cable to the DC jack (DC IN) of the notebook (1).
- Connect the power cable into the power adapter.
- Plug the power cable into the mains supply.

The battery will charge. The battery indicator flashes green.



The meaning of the various displays can be found in the section "Status indicators" in the "Working with the notebook" chapter.

Switching on the notebook for the first time



When you switch on your notebook for the first time, the supplied software is installed and configured. Due to the fact that this installation must not be interrupted, you should set aside enough time for it to be fully completed and connect the notebook to the mains outlet using the power adapter.

During installation, the notebook may only be rebooted when you are requested to do so!

- Switch the notebook on.
- ▶ During installation, follow the instructions on screen.

Consult the operating system manual if there is anything unclear about the requested input data.

Switching on the notebook



Slide the release button (1) to the right and open the LCD panel (2).



► Press the ON/OFF switch.

The power-on indicator lights up.



After switch-on a self-test (POST, Power On Self Test) is automatically carried out. Never switch the notebook off during the self-test.



If you have assigned a password, you must enter this when requested to do so, in order to start the operating system password. Detailed information can be found in "Security functions" chapter.

Switching the notebook off

▶ Shut down the operating system properly (with the *Exit* function in the *Start* menu).



With Windows XP the notebook switches off automatically. If the notebook does not switch off automatically, press the ON/OFF switch for approx. four seconds.

Close the LCD screen so that it locks into place.

Working with the notebook

This chapter describes the basics for operating your notebook.

Please see the "Connecting external devices" chapter for instructions on how to connect devices such as a printer to the notebook.

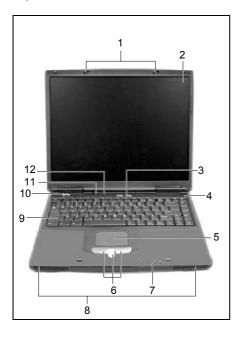


Please take note of the information in the "Important notes" chapter.

Views

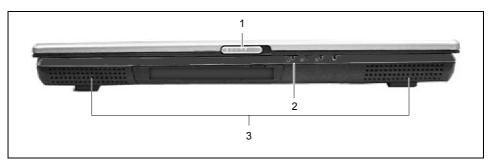
In this section the various hardware components of your notebook are introduced. You can open an overview of the displays and connections of the notebook. Please familiarise yourself with these components before you start to work with your notebook.

Opened Notebook



- 1 = LCD display panel releases
- 2 = LCD screen
- 3 = Easy buttons
- 4 = Microphone
- 5 = Touchpad
- 6 = Touchpad keys with touchpad scroll key
- 7 = Status indicators
- 8 = Loudspeakers
- 9 = Keyboard
- 10 = ON/OFF switch
- 11 = Closed cover switch
- 12 = Status indicators

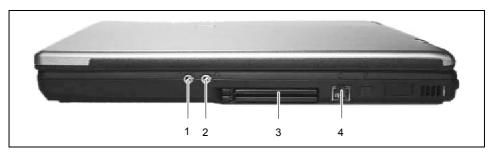
Front



- 1 = Screen lock
- 2 = Status indicators

3 = Loudspeakers

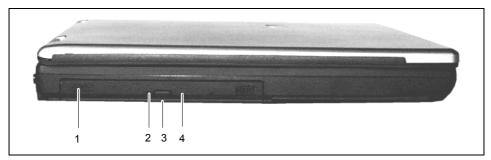
Right side panel



- 1 = Microphone jack
- 2 = Headphones port

- 3 = PC card slot
- 4 = Modem port

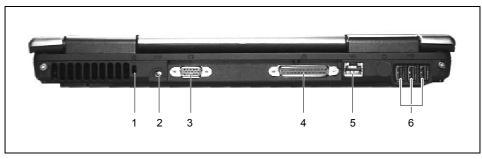
Left side panel



- 1 = Optical drive
- 2 = Drive indicator

- 3 = Insert/eject button of optical drive
- 4 = Opening for manual ejection

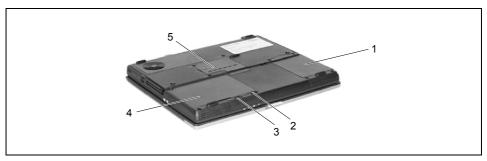
Back panel



- 1 = Kensington Lock
- 2 = DC jack (DC IN)
- 3 = Monitor port

- 4 = Parallel port
- 5 = LAN connector
- 6 = USB ports

Under side

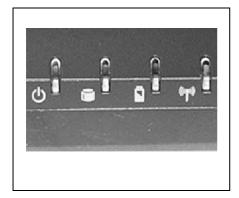


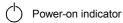
- 1 = Hard disk
- 2 = Lock for battery lock
- 3 = Battery release latch

- 4 = Battery
- 5 = Memory cover

Status indicators

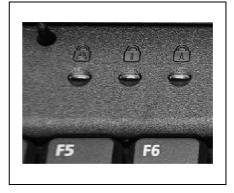
The status indicators provide information about the status of the power supply, the drives and the keyboard functions.







Battery indicator



A Caps Lock indicator

1 Num Lock indicator

Scroll indicator (Scroll Lock)

The meanings of the symbols are as follows:



Power-on indicator

- The indicator is green: The notebook is on.
- The indicator lights orange: The notebook is in energy-saving mode.
- The indicator is dark: The notebook is switched off.



Hard disk indicator

The indicator flashes green when the hard disk is accessed.



Battery indicator

- The indicator is green: The battery is fully charged, and the power adapter is connected.
- The indicator flashes green ((1 second on; 3 seconds off): battery is being charged.
- The indicator is orange: the battery capacity is very low. The remaining operating time is approx. 5 - 10 % of the battery capacity.
- The indicator flashes orange: The battery is nearly empty. The remaining operating time is a maximum of 4 % of the battery capacity.
- The indicator is red: The battery is defective or temperature is extremely high/low.
- The indicator does not light up: the notebook runs on its built-in battery or the notebook is switched off.



Caps Lock indicator

The **\rightarrow** key has been pressed. All the characters you type appear in uppercase. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.



Num Lock indicator

The Num key has been pressed. The numeric keypad is activated. You can output the characters located at the upper right on the keys.



Scroll indicator (Scroll Lock)

The key combination **Fn** + **Scr** has been pressed. The effect this key has varies from programme to programme.

Keyboard



The keyboard of your notebook is subject to continuous wear due to normal use. The keyboard markings are subjected to particularly high loads. The keyboard markings can wear off in the course of using the notebook.

The keyboard has been designed to provide all the functions of an enhanced keyboard. Some enhanced keyboard functions are mapped with key combinations.

The following description of keys and key combinations refers to Windows.

Letter keys



Backspace key

The Backspace key deletes the character to the left of the cursor.



Tab key

The Tab key moves the cursor to the next tab stop.



Enter key (return)

The enter key terminates a command line. The command you have entered is executed when you press this key.



Caps Lock key

The Caps Lock key activates uppercase mode (Caps Lock indicator lit). The Caps Lock function causes all the characters you type to appear in uppercase. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.

To cancel the Caps Lock function, simply press the Caps Lock key again.



Shift key

The Shift key causes uppercase characters to appear. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.



Alt Gr key

The Alt Gr key allows one to type the characters printed on the lower right of the keycaps (e.g. { in the case of the 7 key on the German keyboard).



Fn key

The **Fn** key activates the special functions at the lower edge of a on overlay key (see "Key combinations").



Cursor keys

The cursor keys move the cursor in the direction of the arrow, i.e. up, down, left, or right.

Pause key

The **Pause** key temporarily suspends display output. Output will resume when you press any other key.

Function keys

Function keys (do not mix up with Fn key) are the 12 keys on the top of keyboard.



The keys F1 to F12 are called function keys, because it is possible to execute programmed functions.

The function keys with additional symbols enable other functions in conjunction with key Fn.

Windows logo keys

With Windows this both keys enable special functions (see also the "Key combinations" section).



Start key (on Windows systems)

The Start key invokes the Windows Start menu.



Menu key (on Windows systems)

The Menu key invokes the menu for the marked item.

Virtual numeric keypad

The keyboard of your notebook does not have a number block. To provide the convenience of a numeric keypad, your keyboard is equipped with a virtual numeric keypad. The special keys of the virtual numeric keypad are recognisable by the numbers and symbols printed in the upper right corner of each key (see the illustrations that follow).

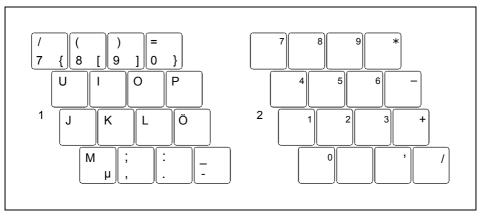


Illustration (example of German keyboard layout)

- 1 = Characters enabled when Num Lock indicator is not lit (see "Status indicators").
- 2 = Characters enabled when Num Lock indicator is lit (see "Status indicators").

When the virtual number block is switched on (the Num Lock indicator lights up), you can output the characters located at the upper right on the keys.

Key combinations

The following description of key combinations refers to functions when using Microsoft Windows. Some of the following key combinations may not function in other operating systems and with some device drivers

The figure below shows how to access the different characters on keys with overlaid functions.

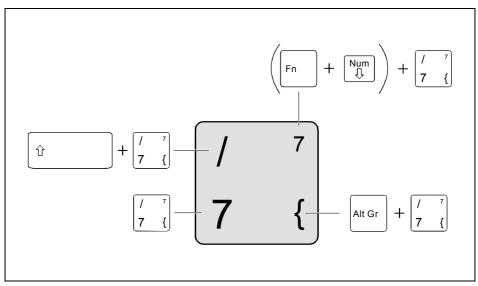


Illustration (example of German keyboard layout)

Key combinations are performed as follows:

- ▶ Press and hold the first key in the combination.
- ▶ While holding the first key down, press the other key or keys in the combination.



Decreasing screen brightness

This key combination decreases screen brightness.



Increasing screen brightness

This key combination increases screen brightness.



Switching between internal and external screen

If an external monitor is connected, the monitor on which the output is to be displayed can be selected with this key combination.

You can opt to use:

- iust the notebook's LCD screen
- just the external monitor
- both the LCD screen and the external monitor.



Switching on NumLK

This key combination activates the numeric keypad. The characters on the upper left on keys in the integrated virtual numeric keypad are enabled.



Halting the current operation

This key combination can be used to halt an operation instantly without clearing the keyboard buffer.



Backtab (Shift+Tab)

This key combination moves the cursor back to the previous tabular stop.

Windows key combinations



Opening Windows Explorer

This key combination opens Windows Explorer.



Opening "Run" dialog box

This key combination opens the Run dialog box.



Opening "Find for: All files" dialog box

This key combination opens the Find: All files dialog box.



Opening "Find: Computer" dialog box

This key combination opens the *Find: Computer* dialog box.

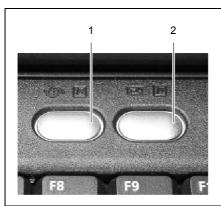


Opening "System Properties" dialog box

This key combination opens the System Properties dialog box.

Easy buttons

Your notebook is equipped with two easy buttons.



1 = Internet

With this key you can start the standard internet browser for your system.

2 = E-Mail:

Use this key to start the standard e-mail programme for your system.

Touchpad and touchpad buttons

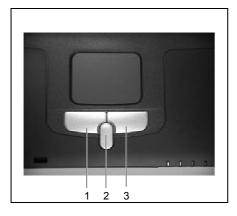


Keep the touchpad clean, protect it from dirt, liquids, and grease.

Do not use the touchpad if your fingers are dirty.

Do not rest heavy objects (e.g. books) on the touchpad or the touchpad buttons.

The touchpad enables you to move the mouse pointer on the screen. The touchpad buttons allow the selection and execution of commands. They correspond to the buttons on a conventional mouse.



- 1 = Left touchpad button
- 2 = Touchpad scroll button
- 3 = Right touchpad button

Moving the pointer

Move your finger on the touchpad.

The pointer will move accordingly.

Selecting an item

- ▶ Move the pointer to the item you wish to select.
- ► Tap the touchpad once or press the left button once.

The item will be selected.

Executing a command

- ▶ Move the pointer to the field you wish to select.
- ► Tap the touchpad twice or press the left button twice.

The command will be executed.

Dragging an object

- Move the pointer to the item you wish to select.
- Select the desired object and hold down on the left button.
- Drag the object to the desired position.
- Lift your finger from the touchpad.

The item will be moved.

Scrolling up

Press the upper side of the touchpad scroll button to scroll up.

The information/texts above the display area appear.

Scrolling down

Press the lower side of the touchpad scroll button to scroll down.

The information/texts below the display area appear.

Closed cover switch

The lid switch is a contact switch that causes the notebook to switch into the Standby mode when the LCD screen is folded closed. You can set the lid switch under Windows XP.

 Select the Advanced tab under Start - Settings - Control Panel - Energy Options to set the closed cover switch.

LCD screen

Information on LCD monitor

High-quality TFT displays are installed in notebooks from Fujitsu Siemens Computers GmbH. The specification of the monitor resolution indicates how many pixels can be displayed. For example, "XGA" stands for 1024 x 768 pixels. Each pixel consists of three so-called subpixels of the colours red, green and blue. As a result, an XGA monitor consists of 1024 x 768 x 3 = 2,359,296 subpixels.

The standard of production techniques today cannot guarantee an absolutely fault-free monitor. A few isolated constant lit or unlit pixels may be present. To ensure the highest possible quality, Fujitsu Siemens Computers uses only monitors that at least comply with the standard DIN ISO 13406-2 (Class III).

TFT monitors are operated with background lighting. The luminosity of the background lighting can decrease during the period of use of the notebook. The brightness of your monitor can be set individually with the brightness control keys of the keyboard.

Display settings

Setting resolution under Windows

You can change the screen resolution under *Start - Settings- Control Panel - Display - Settings* and then selecting from the *Resolution* field.

Setting font size under Windows

Under Start - Settings - Control Panel - Display - Settings you can choose between a larger and a smaller font in the Font size field.

Setting the display brightness

You can adjust the brightness of your LCD display with the keys $\[\]$ and $\[\]$ or $\[\]$ and $\[\]$:

You can reduce screen brightness with **Fn** and **▼**, with **Fn** and **▲** screen brightness will be increased.

Synchronising the display on the LCD screen and an external monitor

Your notebook supports the simultaneous display on the LCD screen and an external monitor. If the picture does not appear correctly on the LCD monitor, press the key combination $\boxed{\textbf{Fn}} + \boxed{\textbf{F5}}$ several times, or switch the external monitor off and then on again. This achieves good picture synchronisation.

Adjusting pointer speed

Under Windows you can change the speed of the mouse pointer under *Start - Settings - Control Panel - Mouse* and clicking on the *Motion* tab.

Battery

The battery is one of the most important components of your notebook. When not plugged into a mains outlet, the notebook runs on its built-in battery. You can increase battery life by enabling the system's power management features.

When you switch on the notebook, it takes a few seconds before the battery status is displayed.

The standard battery will last for roughly 500 charge/discharge cycles, this will vary according to which battery pack is fitted.

Charging, caring for and maintaining the battery



Only use batteries released for your notebook.

Take care not to drop the batteries or otherwise damage their casing (fire risk).

If the rechargeable batteries are defective, they must not be used.

Do not touch the contacts of the batteries.

Never interconnect the positive and negative terminals of a battery.

Used batteries must be disposed of in accordance with local regulations (special waste).

Observe the information on battery storage in the "Important notes" chapter.

You can charge the battery by connecting the notebook to the power adapter.

The battery can only be charged when the ambient temperature is between 5°C and max. 40°C.

Work in the battery mode until an acoustic warning prompts you to recharge and the battery indicator in the status indicator panel begins to flash. The battery should not be charged before this point.

If you do not connect the power adapter within five minutes of the signals described above, your notebook will automatically switch to the energy-saving mode or off (see also the "Energy saving functions" section).

Storing the battery

Store the battery in a fully charged state. Keep the battery pack between 0°C and +30°C (32 and 122 degrees Fahrenheit). The lower the temperature at which the batteries are stored, the lower is the rate of self-discharge.

If storing for a long period of time (longer than two months) batteries should be fully charged before storage.

To be able to make use of the optimal charging capacity of the batteries, the battery should be completely discharged and then fully recharged.



If you do not use the batteries for long periods, remove them from the notebook. Never store the batteries in the unit.

Monitoring the battery charging level

Power management includes a "battery charge meter" located in the task bar. When you place the mouse pointer on the battery symbol, the system displays the battery status.

Removing and installing the battery



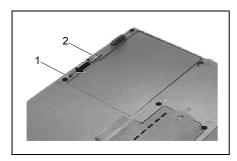
Only use batteries released for this notebook.

Never use force when inserting or removing a battery.

Make sure that foreign objects do not fall into the battery compartment.

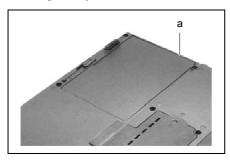
- Switch the notebook off.
- Close the LCD screen so that it locks into place.
- Unplug the power adapter from the mains outlet.
- Disconnect all cables connected to the notebook.
- Place the notebook on a flat surface.
- Turn the notebook over.
- Place the notebook on a flat surface.

Removing battery



- Press the lock for battery lock (1) and hold it down.
- Push the battery lock (2) in the direction of the arrow.
- Pull the battery out of the battery compartment.

Inserting battery



- Position the battery at the edge of the casing (a).
- ► Tilt and put the battery into the battery compartment.

Performing the battery learning cycle

The battery contains electronics that continuously monitor the battery charging level and display the current charging level. To compensate for measuring errors in the electronics, and because the chemical properties of the battery change over time, the electronics must be recalibrated regularly. This calibration is carried out using a battery learning cycle. Using the battery learning cycle ensures that the maximum battery capacity can always be used. During the learning cycle a defined charging cycle is carried out.



The battery learning cycle lasts between four and six hours and must not be aborted. During this period you can not work with the notebook!

After six months, at the latest, you should run a learning cycle with the battery again.

- Connect the power adapter to the notebook (also see the section "Connecting the power adapter").
- ► Restart the notebook (switching ON/OFF or warm boot).

The following display briefly appears on the screen during start-up:

<F2> Setup menu <F6> Battery learning <F12> Boot menu

- ▶ Press function key F6.
- ▶ Press the C button to start the learning cycle.

When the learning cycle is ended, a corresponding message is displayed.

► Exit the menu with the S key.

Energy saving functions

The notebook uses less power when the power management features are enabled. You will then be able to work longer when using the battery before having to recharge it.



If you are connected to a network or use an integrated modem, PC LAN card, or PC modem card, we advise against enabling an energy saving mode. This could lead to an interruption of your network connection.

When not using the notebook for long periods of time, first end the energy saving mode, then switch off the notebook. Never switch the notebook off with the Suspend/Resume button while the notebook is in one of the energy-saving modes.

If your notebook is in an energy-saving mode:

- Do not connect any external devices.
- Do not disconnect any external devices.
- Do not attempt to switch the notebook on if the built-in battery is flat.
- Do not change or remove the floppy disk, if inserted.
- Do not add or remove RAM.
- Do not add or remove a PC card.

The operating system uses ACPI (Advanced Configuration and Power Interface) for power management under Windows XP. The energy saving functions can be activated under *Start - Settings - Control Panel - Power Options*.

Under Windows, Hibernate is activated by default.

Hard disk

The hard disk is the most important storage medium of your notebook. You can work considerably faster and more efficiently if you copy applications and files from floppy disks and/or CDs to your hard disk.

When the hard disk is accessed, the hard disk indicator lights up.

Optical drive

Your notebook is delivered with an optical drive. Depending on the variant, your notebook is equipped with a DVD drive or a combo drive (CD-RW/DVD).

Optical drives can either only read or both read and write different optical data storage media. The meaning of the respective optical data storage media is described in the following:

CD-ROM

Abbreviation for Compact Disc - Read Only Memory. A CD-ROM is an optical data storage medium that can contain a maximum of 700 Mbytes. These data cannot be changed.

CD-R

Abbreviation for **C**ompact **D**isc **R**ecordable. A CD-R is an optical data storage medium that can only be written with a maximum of 700 Mbytes of data. Then these data cannot be changed, but can be read as often as desired.

CD-RW

Abbreviation for **C**ompact **D**isc **ReW**riteable. A CD-RW is an optical data storage medium that can be written with a maximum of 700 Mbyte of data a virtually unlimited number of times. This means the data can be deleted and changed.

DVD (DVD-ROM and DVD video)

Abbreviation for **D**igital **V**ersatile **D**isc or **D**igital **V**ideo **D**isc. A DVD is an optical data storage medium that can contain a maximum of 17 Gbytes of data. These data cannot be changed.

Combo drive (CD-RW/DVD)



The combo drive in your notebook contains a light-emitting diode (LED), classification as per IEC 825-1:1993: CLASS 1 LASER, and may therefore not be opened.

With the combo drive you can read all optical data storage media named above. You can also write CD-Rs and CD-RWs.

DVD drive



The DVD drive in your notebook contains a light-emitting diode (LED), classification as per IEC 825-1:1993: CLASS 1 LASER, and may therefore not be opened.

With the DVD drive you can read all optical data storage media named above.

Handling CD/DVDs

From this point all different optical data storage media will be referred to as CD/DVDs; the writeable optical data storage media are called blanks.



Observe the following when handling CD/DVDs:

- Avoid touching the surface of a CD/DVD. Handle CDs/DVDs only by their edges!
- Always store CDs/DVDs in their cases. Thus you avoid dust contamination, scratches, bending or other damage.
- Protect your CDs/DVDs from dust, mechanical vibration and direct sunlight!
- Avoid storing a CD/DVD in areas subject to high temperatures or humidity.



To utilise the optimum writing speed, use CD blanks marked "Multispeed" or "High Speed".

Use only DVD blanks of the type DVD+RW. Other types of DVD blanks are not supported by your optical drive.

Inserting or removing a CD/DVD

The notebook must be switched on.

Push the insert/eject button.

The drive tray will open.



- ▶ Pull the drive tray all the way out (1).
- ▶ Place the CD/DVD in the drive tray with the label facing upwards (2).

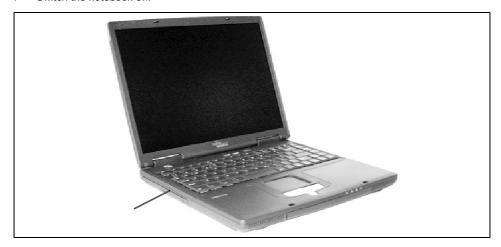
or

- Take out an inserted CD/DVD.
- Push in the drive tray until you feel it lock into place.

Manual removal (emergency removal)

In the event of a power failure or damage to the drive it may be necessary to manually remove the CD/DVD

Switch the notebook off.



Press a pen or a piece of wire (e.g. a paper clip) firmly into the opening.

The drive tray is unlocked. You can now pull the drive tray out of the drive.

Regional codes for DVD films and DVD players

DVD films and DVD players (e.g. the optical drive of your notebook) are always provided with a regional code. The regional codes of DVD films and DVD players must match so that the DVD film can be played back.

There are six different regional codes:

- Regional code 1: USA and Canada
- Regional code 2: Egypt, Europe, Japan, South Africa and the Middle East
- Regional code 3: Southeast Asia (including Hong Kong, Indonesia, Philippines, South Korea, Taiwan)
- Regional code 4: Australia, New Zeeland, Southeastern Pacific, Central and South America and the Caribbean
- Regional code 5: Africa (except South Africa), India and the former states of the USSR
- Regional code 6: China

The optical drive of your notebook supports the function RPC-II (Phase II System of Regional Playback Control). This function permits the final user to change the regional code of the drive up to five times to play back corresponding DVD films. Then the last regional code selected is retained and cannot be changed again.



If a DVD film is to be playable in all regions, it has the regional code 0.

Before buying a DVD film you should check that the regional code of the DVD film matches the regional code set for the optical drive of your notebook.

Adjusting AutoPlay function of optical drive

With the AutoPlay function you can specify whether or not a program or action is to be run/carried out depending on the CD/DVD content type of Windows XP. For example, you can specify that when an Audio CD is inserted, the Media Player is automatically started and automatically plays the Audio CD.

You can set the AutoPlay function of the optical drive according to your needs. Proceed as follows:

▶ Click on the Start menu with the right mouse button or touchpad key.

A context menu appears.

- ► Click on *Explorer*.
- Click on the corresponding drive with the right mouse button or touchpad key.

A context menu appears.

- ► Click on *Properties*.
- ► Click on the AutoPlay tab.
- Adjust the AutoPlay function to meet your needs.



Please note that you must select the desired action and confirm it with Apply for each individual CD/DVD content type.

Floppy disc drive (optional)

Your notebook is equipped with a floppy disc drive as an option.



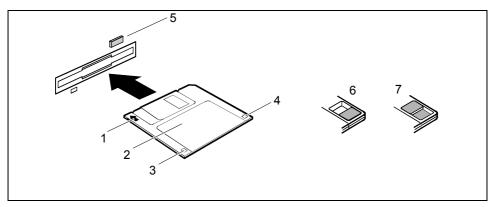
Never clean the floppy disk drive with cleaning disks. Any attempt would destroy the read/write head in the disk drive within 20 seconds.

Make sure that no floppy disk is inserted in the floppy disk drive during transport. Otherwise the eject button may break off and the floppy disk drive will be damaged.

Working with floppy disks



Follow the instructions supplied by the vendor of the floppy disks.



- 1 = Insertion direction
- 2 = Label area
- 3 = Write protection tab for a 1.44 Mbyte floppy disk
- 4 = Identification of a 1.44 MB floppy disk or write protect switch on a 120 MB floppy disk
- 5 = Eject button for inserted floppy disks
- 6 = Disk is write-protected
- 7 = Disk is not write-protected

To insert a diskette

► Push the floppy disk into the drive in the insertion direction (1) until it engages. The label should be facing upward.

To remove a diskette

Push the eject button (5).

Protect the floppy disk against being overwritten or erased

Slide the write-protect slider into position (6). The hole is now visible.

Deactivate write protection

▶ Slide the write-protect slider into position (7). The hole is now covered.

PC cards

Two PC card slots enable the device to operate two type II PC cards or one type III PC card (CardBus or PCMCIA).



Consult the documentation supplied by the PC card's manufacturer and follow the instructions provided.

Never use force when inserting or removing a PC card.

Make sure that foreign objects do not fall into the PC card slot.

Installing a PC card



- ► Insert the PC card, contacts first, into the slot guide. The labelled side of the PC card should be facing upward.
- Gently push the PC card into the slot until you feel it click into place.



Consult the documentation supplied with the PC card for information on how to install the necessary device drivers.

For further information refer to the information files (e.g. *.TXT, *.DOC, *.WRI, *.HLP or *.PDF) provided on the PC card driver diskette or in the operating system manual.

Removing a PC card

Use the small PC card icon located in your task bar to stop the card.

- ▶ Click on the PC card icon in the task bar with the right mouse button.
- ► Select PC card Properties.
- ▶ Select the card you wish to stop and click on *Stop*.

Wait for the dialogue box which tells you that it is now safe to remove the PC card.



- Press the eject button (1). The PC card will project further out of the notebook's case. If the eject button is lowered, you must first cause the eject button to release from the notebook casing. Press the eject button until it snaps out.
- Pull the PC card (2) out of the slot.

Microphone and loudspeakers

Your notebook contains a built-in microphone and two loudspeakers.

If you attach an external microphone, the built-in microphone is disabled. The internal loudspeakers switch off when you attach headphones or external loudspeakers to the audio jack.

Adjusting the volume

► To adjust the volume use the *volume control* entry from the *Start* menu *All Programs - Accessories - Multimedia - Volume Control*,

or

use the loudspeaker symbol in the task bar.

Switching the loudspeakers on/off

► To switch the loudspeakers on and off use the *volume control* entry from the menu *Start - All Programs - Accessories - Multimedia - Volume Control*.

or

use the loudspeaker symbol in the task bar.

Integrated 56k modem

The integrated 56k modem supports data communication applications, such as:

- Modem operation: High-speed downloads at up to 56,000 bit/s (V.90). Downward-compatible to V.34 modems.
- Fax mode: Transmitting and receiving at up to 14,400 bit/s
- Simple country adaptation with programme

The modem complies with the EU Directive 91/263/EEC (Telecommunications terminal equipment directive) and has been checked in agreement with the guideline TBR-21.

The modem can be operated in the following countries:

Multifrequency (MFC) dialling

Belgium, Denmark, Germany, Finland, France, Greece, Great Britain, Holland, Ireland, Iceland, Italy, Luxembourg, Norway, Austria, Portugal, Sweden, Switzerland and Spain.

Pulse dialling:

Belgium, France, Holland and Italy.

Also in: Poland, Slovenia, South Africa and Hungary.

Connecting notebook modem to telephone connection

- ► Connect the modem cable supplied to the country-specific telephone adapter.
- ► Connect the modem cable to the modem port of the notebook.
- ► Connect the modem cable to your telephone wall socket.



If you attach your modem on a TAE-N-connector the phone respectively data cable is busy. The cable cannot be used for other communication devices at the same time. Pull the modem plug out of the TAE-N-power socket after the data transfer, because also with connected cable no other communication devices can be used.

Ethernet and LAN/DSL ready

The internal LAN module of your notebook supports Ethernet-LAN (10/100 Mbps).

- ► Connect the LAN cable to the notebook's LAN connector.
- Connect the network cable to your LAN network connector.

Security functions

Your notebook enables you to protect your system and personal data in a number of ways against unauthorised access. By combining these options, you can achieve maximum protection for your system.

In this chapter you will learn which security functions your notebook is equipped with, which advantages these functions offer you and how to configure and use them.



Please consider that in the case of improper use, you yourself will also be unable to access your system and your data. Please note therefore the following hints:

- Back up your data on external data carriers at regular intervals.
- Passwords must be assigned for some security functions. Please be sure to note these passwords, as otherwise you will no longer be able to access your system.
 We recommend that you make a note of the passwords and keep them in a safe place.

If you lose both the user and the admin passwords, you must contact our help desk. The loss of passwords is not a warranty case and is therefore subject to charge.

Overview of all security functions

The following sections contain a brief description of the security functions that are provided with your notebook as standard equipment.

Kensington Lock

With the Kensington MicroSaver, a sturdy steel cable, you can protect your notebook from theft. For this reason your notebook is equipped with a device for the Kensington MicroSaver. The Kensington MicroSaver is available as an accessory.

BIOS password protection

You can protect you personal data from unauthorised access with various passwords. By combining these different options, you can achieve maximum protection for your system.

Password protection for the BIOS setup

With the Supervisor password you prevent unauthorised opening of the *BIOS Setup*, and with it access to important system settings. In the *BIOS Setup* you can also activate protection for the operating system and your hard disk.

Password protection for the operating system

With corresponding settings in the *BIOS Setup* you can block starting of the operating system. Only those who know the supervisor or user password can access the system.

Password protection for your hard disk

By activating the hard disk protection in the *BIOS Setup* you prevent unauthorised access to the hard disk drive. The hard disk password is checked internally during each system start-up and ensures that the hard disk can only be used in conjunction with the related device.

Brief overview of the security functions

Security function	Type of protection	Preparation
Kensington Lock	Mechanical	Mount and lock Kensington MicroSaver (accessory)
BIOS password protection	Password protection for <i>BIOS Setup</i> , operating system and hard disk with Supervisor and User password. The passwords consist of a maximum of eight alphanumeric characters.	Specify at least one Supervisor password in the BIOS Setup and activate the password protection for the operating system and hard disk as desired.

Using Kensington Lock

With the Kensington MicroSaver, a sturdy steel cable, you can protect your notebook from theft. For this reason your notebook is equipped with a device for the Kensington MicroSaver. The Kensington MicroSaver is available as an accessory.



1 = Kensington Lock

► Fit the Kensington MicroSaver on the device (1) on your notebook.

Configuring password protection in BIOS Setup



Before using the various options of password protection for your data security in the *BIOS Setup*, please note the following hints:

- Please keep in mind your passwords in any case, as you will not be able to access your BIOS Setup and/or your system any longer, if you forget both the user password and the supervisor password.
 - The loss of passwords is not a warranty case and is therefore subject to charge.
- Back up your data on external data carriers at regular intervals.



Passwords can be up to eight characters long. You can use all alphanumeric characters and need not distinguish between uppercase and lowercase characters.

Protecting BIOS Setup (supervisor and user password)

We recommend that you print out the following instructions, as these cannot be displayed while setting the password.

You prevent unauthorised opening of the *BIOS Setup* with both the supervisor and the user password. With the supervisor password you have access to all functions of the *BIOS Setup*, and with the user password only to part of the functions. You can only set a user password if a supervisor password has already been assigned.



Please refer to section "Settings in BIOS Setup" for a description of calling and operating the BIOS Setup.

Set the supervisor and user password

- ► Call BIOS Setup and select the Security menu.
- ▶ Mark the Set Supervisor Password field and press the Enter key.

With Enter new Password: you are then requested to enter a password.

► Enter the password and press the Enter key.

With Re-Enter new Password you are asked to confirm the password.

Enter the password again and press the Enter key.

With Notice: Changes have been saved you receive a confirmation that the new password has been saved.

► To assign the user password, mark the field *Set User Password* and proceed exactly as when configuring the supervisor password.

If you do not want to make any other settings, you can exit BIOS Setup.

▶ Select the *Exit Saving Changes* option in the *Exit* menu.

The notebook is rebooted and the new password is effective. If you now want to open the *BIOS Setup*, you must first enter your supervisor or user password. Please note that you only have access to a few BIOS settings with the user password.

Change supervisor or user password

- ▶ Open the *BIOS Setup* again and there the *Security* menu.
- When changing the password, proceed exactly as for password assignment.

You can only change the supervisor password when you have logged into the *BIOS Setup* with the supervisor password.

Cancelling passwords

To cancel a password (without setting a new password) run the following steps:

- ► Call BIOS Setup and select the Security menu.
- ▶ Mark the Set User Password or Set Supervisor Password field and press the Enter key.

With Enter new Password you will then be asked to enter a password.

- Press the Enter key twice.
- ▶ Select the Exit Saving Changes option in the Exit menu.

The notebook is rebooted and the password is cancelled.

With the supervisor password you simultaneously deactivate the user password.

Password protection of operating system



With the supervisor password or the user password, you have assigned in the *BIOS Setup* (see section "Set the supervisor and user password"), you can also prevent booting of the operating system.

Activating system protection

- Call BIOS Setup and select the Security menu.
- ▶ If you have not assigned BIOS passwords yet, define the supervisor and the user password now, if desired (see "Set the supervisor and user password" section).
- ▶ Mark the *Password on Boot* field and press the Enter key.
- ▶ Select the *Every Boot* entry and press the Enter key.

If you do not want to make any other settings, you can exit BIOS Setup.

▶ Select the Exit Saving Changes option in the Exit menu.

The notebook reboots and you are asked to enter your password (the supervisor or user password).

Deactivating system protection

- ► Call BIOS Setup and select the Security menu.
- Mark the Password on Boot field and press the Enter key.
- Select Disabled and press the Enter key.

If you do not want to make any other settings, you can exit BIOS Setup.

▶ Select the Exit Saving Changes option in the Exit menu.

The notebook reboots and there is no longer any password protection for the operating system.

Password protection for hard disk



The had disk password prevents unauthorised access to the hard disk drives and is checked internally each time the system is booted. The condition for this is that you have assigned at least the supervisor password.

Activating hard disk protection

Call BIOS Setup and select the Security menu.

If you have not assigned BIOS passwords yet, define the supervisor and the user password now, if desired (see "Set the supervisor and user password" section).

Mark the Hard Disk Security field and select the Enabled entry.

If you do not want to make any other settings, you can exit BIOS Setup.

▶ Select the Exit Saving Changes option in the Exit menu.

The notebook reboots and your hard disk is now protected with a password.

Deactivating hard disk protection

- ► Call BIOS Setup and select the Security menu.
- ▶ Mark the *Hard Disk Security* field and select the *Disabled* entry.

If you do not want to make any other settings, you can exit BIOS Setup.

▶ Select the *Exit Saving Changes* option in the *Exit* menu.

The notebook reboots and there is no longer any password protection for the hard disk.

Connecting external devices



Under all circumstances, please observe the safety notes provided in the "Important notes" chapter.

Read the documentation on the external device before connecting it.

Do not connect or disconnect cables during a thunderstorm.

Do not pull on the cable when disconnecting a cable. Always take hold of the actual plug.

Adhere to the order described in the following when you connect external devices to the notebook or separate them from the notebook:

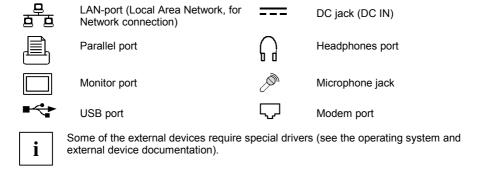
Connecting devices to notebook

- 1) Turn off all power and equipment switches.
- 2) Remove all power plugs from the mains outlets.
- 3) Connect all the cables to the notebook and the external devices.
- 4) Plug all data communication cables into the utility sockets.
- 5) Plug all power cables into the mains supply.

Disconnecting devices from notebook

- 1) Turn off all power and equipment switches.
- 2) Remove all power plugs from the mains outlets.
- 3) Unplug all data communication cables from the utility sockets.
- 4) Disconnect all the cables from the notebook and the external devices.

The ports are marked with the following symbols (or with similar symbols):



Connecting an external monitor

An external monitor can be connected to the notebook.

- ▶ Using the Fn + F5 key combination you can switch back and forth between the external monitor and the LCD screen.
- ▶ If your notebook is equipped with a TFT monitor, you can display the same picture on the external monitor and the LCD screen simultaneously.
- Switch off the notebook and the external monitor.
- Connect the external monitor to the monitor port on your notebook.
- First switch on the monitor and then the notebook.

Setting the refresh rate for your external monitor

The refresh rate must be correctly set so that the image does not flicker.

- ► To change the refresh rate or resolution select the monitor type in the menu Start Settings Control Panel Display Settings Advanced Monitor.
- Now select the Adapter tab.
- Adjust the refresh rate and then click Apply.



If the refresh rate set is too high, the monitor may be damaged. Please see the documentation included with your monitor for the maximum possible refresh rate.

Using the parallel port

- Switch the notebook off.
- ▶ Connect the data cable of the printer to the parallel port on the notebook.
- Plug the printer power cable into the mains outlet.
- First switch the printer on, then the notebook.

Connecting USB devices

On the USB ports you can connect external devices that also have a USB port (e.g. a printer, a scanner or a modem).



USB devices are hot-pluggable. This allows cables from USB devices to be connected and disconnected with the system switched on.

Additional information can be found in the documentation for the USB devices.

- Connect the data cable to the external device.
- ► Connect the data cable to a USB port of the notebook.



Device drivers

The devices you connect to the USB ports usually require no driver of their own, as the required software is already included in the operating system. However, if the USB device requires its own software, please install it from the data carrier provided with the USB device.

Connecting external audio devices

Headphones port

Via the headphone port you can connect either headphones or external loudspeakers to your notebook.

Microphone jack

Via the microphone port you can connect an external microphone to your notebook.

Adjusting the volume

▶ To adjust the volume use the volume control entry from the Start menu All Programs - Accessories - Multimedia - Volume Control,

or

use the loudspeaker symbol in the task bar.

Switching the loudspeakers on/off

► To switch the loudspeakers on and off use the *volume control* entry from the menu *Start - All Programs - Accessories - Multimedia - Volume Control*.

or

use the loudspeaker symbol in the task bar.

Settings in BIOS Setup

In *BIOS Setup* you can set the system functions and the hardware configuration of the notebook. The settings can only be changed via the keyboard.

When it is delivered, the notebook is set to factory default settings. You can change these settings in *BIOS Setup*. Any changes you make take effect as soon as you save and quit the *BIOS Setup*.

The BIOS Setup programme contains the following menus:

Main: for system settings as time, date, hard disk and monitor selection

Advanced: for system settings such as ports and keyboard
Security: for password settings and safety functions
Power: for setting the energy saving functions
Boot: for configuring the boot sequence

Exit: to exit the BIOS Setup

Start BIOS Setup

Restart the notebook (switching ON/OFF or warm boot).

The following or a similar display appears on the screen during booting:

<F2> Setup menu <F6> Battery learning <F12> Boot menu

When this message appears, press the key F2.



If a password has been assigned:

Enter the password and press the Enter key.

If you have forgotten the password, contact your system administrator or contact our hotline/help desk.

Operating BIOS Setup



Press the F1 key to display help on the operation of *BIOS Setup*. The description of the individual settings is shown in the right-hand window of the *BIOS Setup*.

You can revert to the default settings for the *BIOS Setup* menu you are currently in, by using the **F9** function key.

- Use the cursor key ← or → to select the menu you wish to access to make changes.
- Press the Enter key.

The menu is displayed on the screen.

- ▶ Use the cursor key 1 or 1 to select the field you wish to change.
- Press the Enter key to confirm your selection.
- Press the Esc key to exit the selected menu.
- ► For future reference, make a note of the changes you have made (for example, in this manual).

Exiting BIOS Setup

To exit *BIOS Setup*, select the *Exit* menu from the menu bar. You can then decide which settings you want to save. The *Exit* menu offers the following options.

You must mark the required option and activate it with the Enter key.

Exit Saving Changes

Select *Exit Saving Changes* and *Yes* to save the current settings and exit the *BIOS Setup*. The device is rebooted and the new settings come into effect.

Exit Discarding Changes

Select *Exit Discarding Changes* and *Yes* to discard the changes you have made. The settings which were in force when *BIOS Setup* was called remain effective. *BIOS Setup* is terminated and the device is rebooted.

Load Setup Default

To revert all the menus of BIOS Setup to the default entries, select Load Setup Default and Yes.

Discard Changes

To load the values of all the menus of *BIOS Setup* that were in effect when *BIOS Setup* was called, select *Discard Changes* and *Yes*. If you want to exit *BIOS Setup* with these settings, select *Exit Saving Changes* and *Yes*.

Save Changes

To save settings without exiting BIOS Setup, select Save Changes and Yes.

Troubleshooting and tips



Take note of the safety hints in the "Important notes" chapter, when you connect or disconnect cables.

If a fault occurs, try to correct it as described. If you fail to correct the problem, proceed as follows:

- ▶ Make a note of the steps and the circumstances that led to the fault. Also make a note of any error messages displayed.
- Switch the notebook off.
- ▶ Contact your sales outlet or our customer service centre.

Restoring operating system

Using the "Windows Recovery CD" and the "Drivers & Utilities CD", you can restore the operating system of your notebook.

All hard disk contents are deleted during operating system restoration. After this, operating system, drivers and software utilities will be reinstalled. For this reason you should try to save important data to a backup medium before you restore the hard disk contents.

- Insert the "Windows Recovery CD" into the optical drive.
- Switch the notebook on.
- ► Follow the instructions on the screen



Detailed PC knowledge is required for manual partitioning.

You must then reinstall all the drivers. Use the "Drivers & Utilities" CD provided.

The notebook's date or time is incorrect

▶ Set the time and/or date in the *Main* menu.



If the date and time are repeatedly incorrect when you switch on the notebook, the buffer battery that supplies the internal clock is dead.

Connect the notebook via its power adapter to a grounded mains outlet or install a fresh battery. The buffer battery will take approximately two days to complete its recharge. If the problem persists, contact your sales office or our hotline/help desk.

The LCD screen of the notebook remains blank

If your LCD screen remains blank this may be due to the following:

Monitor is switched off

Press a key or enter the password

External monitor or television set connected

▶ Set the setting Display Settings in the menu Advanced - Video Features of the BIOS-Setup to LCD.

The LCD screen is difficult to read

Reflection

Turn the notebook or alter the tilt of the LCD screen.

The external monitor stays blank

If your screen remains blank this may be due to the following:

Monitor is switched off

Switch the external monitor on.

Power saving has been activated (screen is blank)

Press any key to continue.

Brightness control is set to dark

Adjust the brightness control.

Screen output is set to the notebook's LCD screen

▶ Press the key combination Fn + F5 (selecting internal/external display).

The external monitor's power cable or data cable is not connected properly

- Switch off the external monitor and the notebook.
- Check whether the power cable is plugged properly into the external monitor and into the power socket.
- Check whether the data cable is properly connected to the notebook and the external monitor (if it is plugged in with a connector).
- Switch on the external monitor and the notebook.

The external monitor is blank or the image is unstable (under Windows)

The wrong external monitor has been selected or the wrong screen resolution has been set for the application programme.

- ► Terminate the application programme in Windows with Alt + F4. If the fault continues to occur after ending the programme, switch over to the notebook's internal LCD screen with Fn + F5 and carry out the following routine:
- ▶ Select the correct monitor or set the correct screen resolution.
 - Setting the screen resolution: Select Start Settings Control Panel Display Settings and then the screen resolution you require in the Resolution field.
 - Selecting the monitor: Select the correct monitor under Start Settings- Control Panel -Display - Settings - Advanced Properties - Monitor - Modify.

The notebook cannot be started

The battery is not installed correctly

- Switch the notebook off.
- ► Check whether the battery is installed correctly in its compartment.
- Switch the notebook on.

The battery is dead

Charge the battery.

or

Install a charged battery.

or

Connect the power adapter to the notebook.

The power adapter is not connected correctly

- Switch the notebook off.
- Check whether the power adapter is connected correctly to the notebook.
- Check whether the power cable is plugged properly into the power adapter and into the mains outlet. The indicator on the power adapter should illuminate.
- Switch the notebook on.

The notebook is prevented from booting by a disk in the floppy disk drive.

► Check whether this floppy disk is a system disk. Remove the floppy disk.

Operating system files may be damaged or missing.

Boot the notebook with a system floppy disk, via the floppy disk drive.

The notebook stops working

The notebook is in Standby or Suspend mode

Exit the Standby mode or the Suspend mode (switch on the notebook).

An application programme has caused the malfunction

 Close the application programme or restart the notebook by switching it on/off or with a warm boot.

The battery is dead

Charge the battery.

or

Install a charged battery.

or

Connect the power adapter to the notebook.

The mouse does not work

Mouse driver is not loaded

Check whether the correct mouse driver is properly installed and is present before the application programme is started.
Detailed information can be found in the User Guides for the mouse, the application programme or the operating system.

Mouse is not connected

- Switch the notebook off.
- Check whether the mouse cable is correctly connected to the notebook.
 If you use an adapter or extension lead with the mouse cable, check the connections.
- Switch the notebook on.

The printer does not print

- Make sure that the printer is switched on and is on-line (see the manuals supplied with the printer).
- Check that the cable connecting the notebook and the printer is connected properly.
- Check that the correct printer driver is installed.
- Check in the BIOS Setup whether the Onboard Devices Configuration field is set correctly for the port you are using.

The DVD film does not continue to play

Should the picture freeze when playing some DVD films, deactivate the accelerated hardware decryption (it is activated in the default setting; this can be recognised from the checkmark in the corresponding checkbox).

- Open the drive tray.
- Place the DVD in the drive tray with the label facing upwards.
- Push in the drive tray until you feel it lock into place.
- Wait until the WinDVD starts.
- Press the right mouse button or touchpad key.

A context menu appears.

- ► Click on *Configuration* and then on *Video*.
- ▶ Click on the checkmark in the checkbox of *Hardware Acceleration*.

The checkmark disappears.

Click on OK.

The function is now deactivated

Acoustic warnings

A beep sounds approx. every 15 seconds.

The battery is almost flat.

Charge the battery.

System configuration contains invalid data

- Switch the notebook off.
- Switch the notebook on.
- Enter the BIOS Setup programme by pressing F2.
- ▶ Select the default values under *Load Default Settings*.
- ▶ Mark Yes in the Do you want to load default settings? dialogue box.
- Press the Enter key.

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

Error messages on the screen

This section describes the error messages generated by the *BIOS Setup*. Error messages displayed by the operating system or programmes are described in the relevant documentation.

Setup Warning Invalid Password < Continue>

This message is displayed following password entry.

- Press the key combination Fn + PadLK.
- Re-enter the password once.

If the problem persists, contact your sales office or our hotline/help desk.

CMOS Battery Bad

If the error message occurs repeatedly, then the buffer battery in the notebook is flat.

Connect the notebook via its power adapter to the mains outlet. The buffer battery will take approximately two days to complete its recharge.

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

System CMOS checksum bad - Default configuration used

The system configuration information is incorrect.

- Switch the notebook off.
- Switch the notebook on.
- ► Enter the *BIOS Setup* programme by pressing **F2**.
- Select the Exit menu in the BIOS Setup.
- Select the Default Setup entry and click on OK.

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

Insert system diskette and press Enter key to reboot

The operating system cannot be loaded or the hard disk contains no operating system or is not formatted.

- Insert a system disk.
- Press any key to continue.

Invalid system disk - Replace the disk, and then press any key

The inserted disk is not a system disk or the inserted system disk is defective.

- Insert another system disk.
- Press any key to continue.

If you wish to boot from floppy disk:

- Insert a system disk.
- Press any key to continue.

If the operating system cannot be loaded from floppy disk:

► Remove the floppy disk from the drive.

Extended memory failed at offset: xxxx Failing Bits: zzzz zzzz

When testing the extended memory an error has resulted at the address xxxx.

Check whether the additional memory module has been inserted correctly.

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

Failure Fixed Disk n

The settings of the hard disk drive are incorrect.

Start the BIOS Setup (IDE Adapter 0 Master submenu) and select the correct settings.

Keyboard controller error

- Switch the notebook off with the ON/OFF switch.
- ▶ Wait 3 5 seconds and switch on the notebook again.

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

Keyboard error

If you use an external keyboard:

Check the connection and reboot the notebook.

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

nn Stuck key

Make sure that no key is pressed.

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

Operating system not found

- Check in the BIOS Setup whether your hard disk has been set correctly.
- ▶ Make sure that the operating system is installed on the corresponding drive.

Press <F1> to resume, <F2> to SETUP.

This error message appears if an error occurs during the self-test before starting the operating system.

- Press the F1 function key to start the operating system.
- Enter the BIOS Setup programme by pressing F2.

Previous boot incomplete - Default configuration used

Due to an error during the previous system boot, default values were used for certain settings. Check the *BIOS Setup* and the settings.

Press the F1 function key when prompted to do so.

Real Time clock error

Contact your sales outlet or our hotline/help desk.

nnnnK Shadow RAM failed at offset: xxxx Failing Bits: zzzz

Contact your sales outlet or our hotline/help desk.

System battery is dead - Replace and run SETUP

► Contact your sales outlet or our hotline/help desk.

System cache error - Cache disabled

► Contact your sales outlet or our hotline/help desk.

nnnnK System RAM failed at offset: xxxx Failing Bits: zzzz

If the error message appears repeatedly, please contact the place of purchase or our hotline/help desk.

System timer error

Contact your sales outlet or our hotline/help desk.

Memory expansion

Depending on the upgrade level, your notebook is equipped with a 128MB, 256MB or 512MB memory module.



The notebook must be switched off when installing/removing the memory modules, it must not be in Suspend mode.

Use only memory expansions which have been released for your notebook (128, 256, or 512 Mbyte modules, PC 266 DDR SO DIMM, 200 pin JEDEC).

Never use force when installing or removing memory modules.

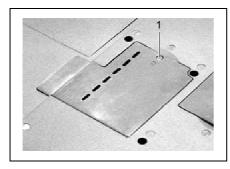
Make sure that foreign objects do not fall into the memory module compartment.

Installing/removing memory

During installation, note that the first slot is assigned at the factory and is therefore not available. The second slot is free and can be used for upgrading.

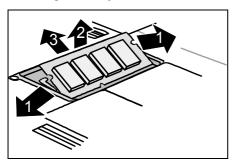
- Switch the notebook off.
- Close the LCD screen so that it locks into place.
- ▶ Unplug the power adapter from the mains outlet.
- Disconnect all cables connected to the notebook.
- Turn the notebook over.
- Place the notebook on a flat surface.
- ► Remove the battery (see "Removing battery").

Removing cover



- Remove the screw (1).
- Open the cover.
- Pull off the cover.

Removing a memory module

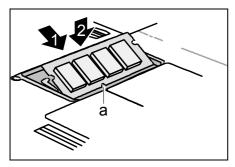


 Carefully push the two mounting clips outwards (1).

The memory module will flap upward (2).

► Pull the memory module out of its slot in the direction of the arrow (3).

Installing a memory module



- ► Insert the memory module with the contacts and the recess (a) facing the slot (1).
- Carefully push the memory module downwards until you feel it latch into place (2).

Testing memory modules after the installation

▶ Switch the notebook on and check whether the changed memory size is detected.

Technical data

Notebook

Processor: Intel Mobile Pentium 4-M; Intel Celeron

Main memory (SO DIMM 3.3 V): Maximum 1 Gbyte PC 266 DDR SO DIMM 2 slots for 128, 256 or 512 Mbyte modules

JEDEC 200-pin; of these one slot is available for

upgrading the memory.

Possible drives:

• Hard disk drive

Optical drive

Electrical data

Regulations complied with: CE, Energy Star

Maximum power draw: 65 W

(notebook on with battery charging)

LCD screen

Display diagonal: • 14.1-inch XGA TFT

15-inch XGA TFT

Graphics

Chip: Intel 852GM

Video memory: 16 Mbyte up to 64 Mbyte (depending on available main

memory) 1600x1200

Supported resolutions on external

monitor:

Colour depth: 32 bit

Audio

Sound: Realtek ALC 2002 (AC'97)

Input devices

Keyboard: 86 keys

Touchpad: 2 keys, 1 scroll

Slots

PC Card slots (CardBus/PCMCIA): PCMCIA 2 x Type II or 1 x Type III

Ports

Parallel port: 25-pin female connector, bi-directional, ECP

capable

Monitor port: 15-pin female connector

Microphone jack: connector, mono

USB (Universal Serial Bus)
 triple

LAN connector:
 Modem port:
 Female connector, RJ-45
 Female connector, RJ-11

Kensington Lock

Environmental conditions

Environment class 7K1 DIN IEC 721
Environment class 7M2 DIN IEC 721

Temperature:

Operating (7K1)
 Transport (2K2)
 5 °C 35 °C
 -15 °C 60 °C

Dimensions

Width/depth/height: 322 mm/272 mm/36/38.5 mm

Weight (depending on configuration): approx. 3.2 kg

Battery

Charging time (when not in operation): approx. 4 hours

Operating time depending on applications: approx. 2 to 3 hours

Power adapter

Primary

Rated voltage: 100 V to 240 V (automatic)
 Frequency: 50 Hz to 60 Hz (automatic)

Max. rated current: 2.3 A

Secondary

Rated voltage: 19 VMax. rated current: 3.95 A

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